

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
16 December 2004 (16.12.2004)

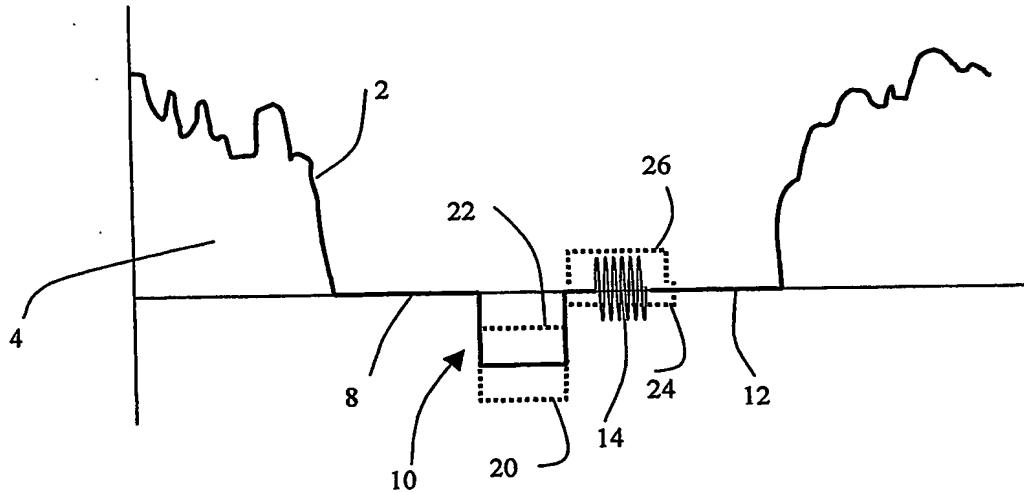
PCT

(10) International Publication Number  
**WO 2004/110060 A1**

- (51) International Patent Classification<sup>7</sup>: **H04N 5/775, 5/913, 7/167** SG1 1AH (GB). HU, Maotai [CN/GB]; The Icon, Lytton Way, Stevenage, Hertfordshire SG1 1AH (GB).
- (21) International Application Number: **PCT/GB2004/002415** (74) Agent: **REEVE, Nicholas, Edward; Reddie & Grose, 16 Theobalds Road, London WC1X 8PL (GB).**
- (22) International Filing Date: 7 June 2004 (07.06.2004) (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (26) Publication Language: English
- (30) Priority Data: 0312985.5 5 June 2003 (05.06.2003) GB
- (71) Applicant (*for all designated States except US*): **DWIGHT CAVENDISH SYSTEMS LIMITED [GB/GB]**; The Icon, Lytton Way, Stevenage, Hertfordshire SG1 1AH (GB).
- (72) Inventors; and (75) Inventors/Applicants (*for US only*): **TAN, Baolin [CN/GB]**; The Icon, Lytton Way, Stevenage, Hertfordshire SG1 1AH (GB). **ABDIN, Mazen, Abdul-Hamed [GB/GB]**; The Icon, Lytton Way, Stevenage, Hertfordshire

[Continued on next page]

(54) Title: **DIGITAL PROCESSING DISRUPTION STEMS**



WO 2004/110060 A1

(57) Abstract: A method and apparatus are described for modifying an analogue video signal to impair its conversion to a digital signal by an analogue to digital converter. The resulting modified signal may prevent the operation of the analogue to digital converter altogether, or even if a digital signal can be output and recorded, may result in a signal which is difficult to view due to a reduction in quality on playback. The modifications made to the signal include altering the amplitude of the horizontal synchronization pulses in the original signal, and/or modifying the level of the back porch, or the region of the signal adjacent the back porch. Additionally, methods are contemplated for the use of specific response models for target analogue to digital converters, and display devices.

**Declaration under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ,*

*BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

**Published:**

- *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*